

ABSTRACT OF THE DISCLOSURE

[29] An optical profiler for an ultra-smooth surface, such as a magnetic recording disk, provides for a normally incident beam deflection against the target surface to be profiled. A linearly polarized laser light of a first polarization is focused on the target surface in a normally incident direction. The beam is reflected back along its original path from the focal point. Optics are provided that change the polarization of the reflected beam to a second polarization. A reflected beam, with a second polarization, is directed onto a position sensitive detector for evaluation.